3. Camila

Program Name: Camila.java **Input File: camila.dat**

Camila is fascinated with last names, and has been doing some research about how they are represented. She has discovered that some last names, even though spelled differently, sound alike, like SMITH and SMYTH, OWEN and OWENS, or PHILLIP and PHILIP. Furthermore, she has discovered a technique used by large databases, which categorizes last names using a coding process. The code for each last name is made up of a letter and three digits. The letter is the first one of the name, and the digits represent the remaining letters, according to the following rules:

- In the rest of the name, disregard all instances of the letters A, E, I, O, U, H, W, and Y
- The digit 1 represents the letters B, F, P and V
- The digit 2 represents the letters C, G, J, K, Q, S, X, and Z
- The digit 3 represents the letters D and T
- The digit 4 represents the letter L
- The digit 5 represents the letters M and N
- The digit 6 represents the letter R

The initial letter, plus the first three digits representing the rest of the letters in the name, make up the code for the name, with zero as a filler for any remaining digit locations.

For example, **SMITH** has a code of **S530**: S as the starting letter, 5 for M, I is ignored, T is 3, and H is ignored, with a zero added at the end for the 3rd digit. **SMYTH** works out the same way: S, 5 for M, Y is ignored, T is 3, and zero at the end. **CAMILA** would be **C540**, **ADAM** would be **A350**, and **BARTEK** would be **B632**. **WASHINGTON** would be **W252**, with W, 2 for S, 5 for N, and 2 for G, with the remaining letters ignored.

Any adjacent letters with the same digit code will be treated as one letter, like **ALLEN** (the first L counts, the second L is ignored, code is **A450**) or **PFISTER** (P counts, F is ignored, code is **P236**) or **JACKSON** (C counts, K is ignored, code is **J250**).

Input: Several last names, all in uppercase, each on one line. There will be no spaces or symbols in any name.

Output: The 4-digit code for each name, as described and demonstrated above.

Sample input:

```
SMITH
SMYTH
CAMILA
WASHINGTON
ALLEN
JILLIANNE
PFISTER
JACKSON
```

Sample output:

```
S530
S530
C540
W252
A450
J450
P236
J250
```